

Precision

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Fifty Cents

SHOOTING

a magazine for shooters by shooters



PRECISION SHOOTING

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NOTICE TO ADVERTISERS

PRECISION SHOOTING is printed by offset. Display copy is to be furnished by the advertiser. Advertising plates will be made from negatives, good black and white glossy prints or clear copy. Displays will be made to Advertiser's specifications. All normal composition will be set according to our own standards. Rate cards will be mailed to Advertisers on request.

The Precision Shooting back issue file awaits your request. We have recently acquired some additional back issues which will fill a few of the lower piles.

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Advertisers Index

Bridge Mount Co.	5
B-Square Co.	6
Corbin, D.R.	9
Douglas Barrels	6
Freeland's Scope Stands	16
Gun Clinic	13
Hart Rifle Barrels	14
Heatbath Corp.	12
Hodgdon Powder Co.	16
Horton Machines & Tool	4
IBS Memo & Club List	3
Jelinek, Joe	7
Mag-na-port Arms	14
Masker, Seely	16
Remington	5
Saunders Gun & Machine ...	7
Trading Post	11
Unertl, John	2
Wichita Engineering	8



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IBS Memo

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The annual membership fee is \$10.00 — Life membership in IBS has been set at \$125. Apply to the recording secretary for enrollment. IBS Affiliated Club Memberships \$10.00

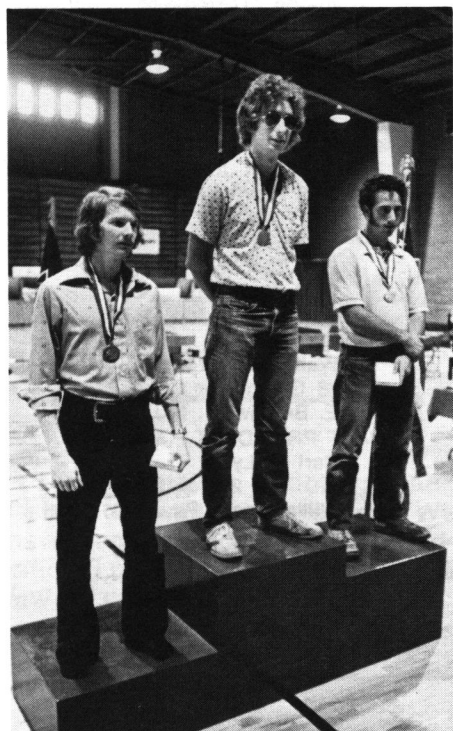
New rule books now available, with minor changes — plus IBS By-Laws at \$1.00 per copy.

IBS Charter Membership Patches and regular patches are available at \$2.00 each.

When ordering **Charter Membership patches** please indicate your 1970 Card number.

West Virginia Shooter Captures Explorer Air Rifle Championship

WICHITA, Kan., Nov. 7 — Patrick Crean, a 19-year-old college student from Salem, West Virginia, outscored 26 other finalists to capture grand aggregate first place honors in the second annual National Explorer Olympic Air Rifle Championships held October 26-28 in Wichita.



Patrick Crean, center; Dale Roberts, right; and Craig Harrel were grand aggregate first, second and third place winners in the second annual National Explorer Olympic Air Rifle Championships. Together they won \$2300 in college scholarships from Crosman Arms Company, sponsor of the shooting competition and gun safety program.

Crean won \$1100 in college scholarships from Crosman Arms Company, a division of the Coleman Company, sponsors of the Explorer shooting competition and gun safety program.

This was the second year for the program and approximately 150,000 Explorers from age 14 through 20 participated on the local level. Posts were furnished an educational brochure covering all phases of shooting used in Olympic-style air rifle competition, with heavy emphasis on safety.

After individual Explorers had completed the course, they competed among posts with winners advancing to council and area competition. Twenty-seven finalists from 20 states received expense-paid trips to Wichita to visit the Coleman plants and compete for \$3,000 in scholarships, plus trophies and medals.

Official rifle for the championships was the Crosman Model 70, a .177 caliber Co²-powered pellet rifle with a single shot bolt action.

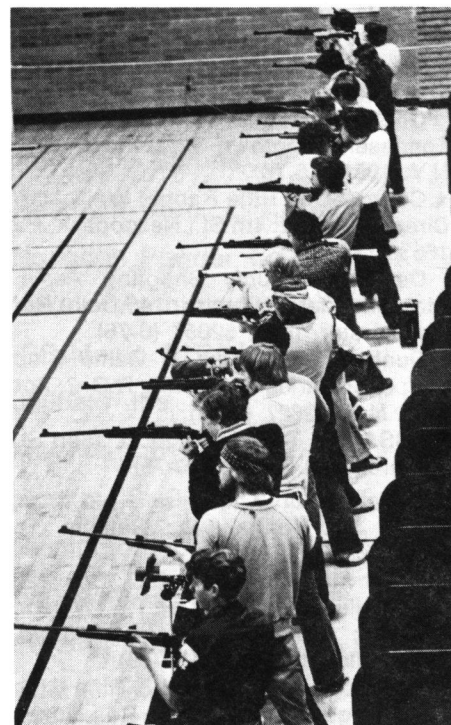
Crean won first in the sitting position, second in prone and third in standing on his way to the aggregate championship. He was the only contestant from last year's event to qualify in 1975.

Crean scored 918 points; Dale Roberts, 18, Torrance, California, was second with 898 and won \$800 in scholarships; and Craig Harrel, 20, Clinton, Tennessee, was third with 883 and \$400 in educational assistance awards.

Other individual winners were Jeff Grabiak, 17, Springfield, Missouri, first in prone and a \$300 scholarship;

Douglas Brown, 18, Dover, Delaware, third in prone and a \$100 scholarship; Bill Fisher, 16, Lincoln, Nebraska, first in standing and a \$300 scholarship.

Crosman and Explorer officials are already planning an expanded shooting education program for 1976 to be offered to more than 500,000 Explorers.



Ready, aim, fire was the order of the day as 27 Explorer Scouts from 20 states competed in the second annual National Explorer Olympic Air Rifle Championships. Patrick Crean, a 19-year-old college student from Salem, West Virginia, captured grand aggregate first place honors and \$1100 in college scholarships from Crosman Arms Company, sponsor of the shooting competition and gun safety program.

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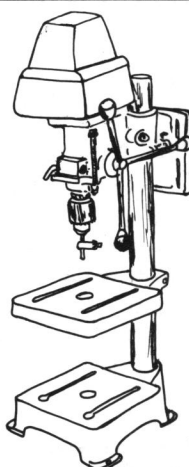
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Cover Story

Our cover individual for the month is Allan King. Allan gets to this spot by way of a double win at Stittsville, Ontario over the Labor Day weekend.

Picking up both the Heavy Varmint and Heavy Bench crowns for the 200 and 300 yard championships Allan shows that knowledge of the home range is important when conditions are rough.

Our best to a fine Canadian shooter for his wins.



"The Editor's Hour"

Australian Super Shoot

Although details are lacking at press time, Skip Gordon advises that the first Australian Super Shoot will be held in Canberra, A.C.T., in October 1976.

A complete program will be published immediately when all information is received. It is known, however, that the tournament will be sanctioned by Sporting Shooters Association of Australia and that extensive cash awards will be available.

Skip Gordon asks that all shooters who might be interested in attending the Australian Super Shoot drop him a note so that he can estimate the level of interest. The group will be limited to 30 members; will be out of the country for two weeks; and will include a limited amount of sightseeing. Costs, based on existing tariffs, are estimated not to exceed \$1,100.00 per person, based upon double occupancy.

The Australian Super Shoot is a 100% Australian venture. Neither the Firearms Industry Super Shoot, nor Boars Head are in any way connected with the tournament.

* * *

The following, editorial, sent to us by W.L. Culbertson of Worland, Wyoming; and printed with permission of the Northern Wyoming Daily News, Worland, Wyoming, reaffirms just what could happen if we drop our guard for a moment. Our thanks to Mr. Culbertson for sending it along.

Thoughts of Pending Federal Gun Control

Captions, "REGISTER YOUR GUN—BE A REAL SWINGER," is an enlarged picture of a Pole, arms bound behind his back, hanging by the neck from a lamp post. It is a gruesome, but graphic reminder of what can happen to an unarmed people.

It is posted on the door of my office.

He was the victim of Hitler's Nazi invasion of his country. The Polish people had been disarmed. Possession of firearms had long since been declared illegal.

I often look at the picture and contemplate.

I don't want my constitutional right

infringed upon to own, to buy, to shoot or to reload ammunition for my firearms.

I don't want a bunch of anti-gun nincompoops in the U.S. Senate or House of Representatives . . . many of whom are grossly misinformed or politically perverted . . . to declare my weapons contraband.

I don't want members of Congress to deprive me of weapons I am now privileged to own, to use if need be, in defense of my person, my family, my home and my valuables.

I don't want, through capricious, thoughtless or politically oriented legislation, to be deprived of that right which I and millions of other men and women went to war to protect and preserve . . . a right which now gives me even odds against those who through force would commit felonies and murder. Persons whose very philosophy and goal in life is to use force to destroy our government. The government that so many of us fought to continue for ourselves and future generations.

I don't want subversive elements or criminals enabled to obtain instruments to destroy me, my family or rob me of my property while I, legally, must remain unarmed. Those who intend to commit crimes will find ways of obtaining firearms and other destructive weapons.

If you agree with these thoughts against proposed gun control through federal legislation, make your opinion known to your Senators and Congressmen.

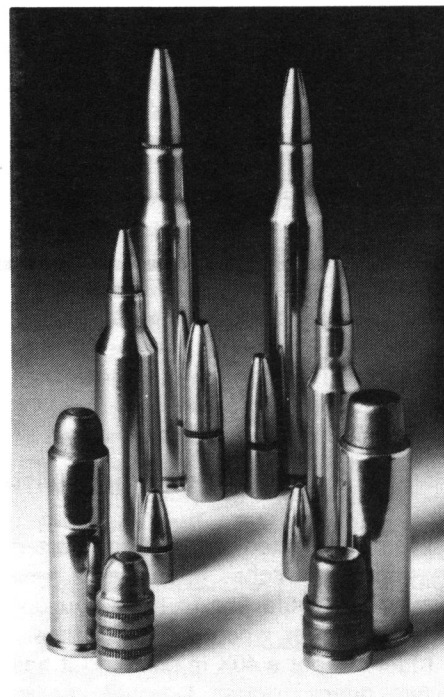
Write, telephone or personally contact these representatives. Let them know that present federal, state and local criminal statutes, if conscientiously and strictly enforced, will be equally as effective as any one or all of the more than 100 anti-gun bills now pending before Congress.

H.K.K.

NEW LOW PRICE—LIMITED OFFER

One piece light weight mount designed for the Redfield 3200 or Unertl Posa Mount but can be used with the Lyman AA or any scope with internal adjustment. Fits short Remington or 40XB series actions. Uses Redfield 3200 rings. No drilling or tapping.

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Technical Column

M.H. Walker
Technical Editor
R.D. 1, Warren Road
Mohawk, N.Y. 13407

STARTING WITH A .222 REMINGTON

I am interested in getting started shooting in matches in this area next summer. I would like to have you answer this letter when you have time.

I just bought a 40X in .222 and it has a two ounce trigger. I would like to know how to make it shoot best.

If I use the original stock should I epoxy bed the receiver or barrel bed to the fore-end? Also, what is the proper procedure for bedding it?

I have Wilson and Lee hand dies but I prefer using my RCBS bench press.

When I go to a match should I load all of my rounds at home or take the press with me and load at the match?

I have only been to one match and there wasn't a bench press being used there. All of the shooters I talked with preferred using hand dies and loaded at the match. I don't see any reason for having to load at the match with the short time you have to do it in.

Mr. George H. Ball
Derby, Indiana 47525



My current load for the .222 is 24.5 grains of IMR 4895 and old 6 1/2 Rem. primers with Remington Bench Rest bullets. This load shoots well enough in both my Heavy Varmint and Light Varmint rifles to win matches. Nevertheless, many shooters use Ball C 1 and 2 and 4198 as well as RL7. Some are also using H322 and Win. 748.

My rifles are regular Rem. 40X usually chambered by myself with a reasonably tight neck so that cases need to be neck turned. They are bedded by Jim Stekl's epoxy barrel bedding method which was covered in Precision Shooting some time ago.

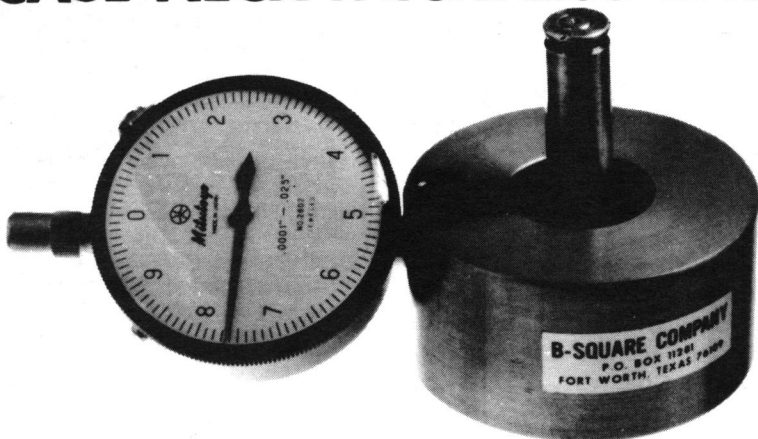
An old CH press is used for loading with special precautions to maintain bullet and case alignment as mentioned many times in Precision Shooting letters.

With the 4895 load the bullets are seated long enough to hit the lands.

Many good shooters load all of their ammunition at home. I still load at the matches, having developed the habit many long years ago. The method of loading or the dies used is not nearly as important as the end product. Good straight loads can be produced in both hand dies and by bench press. Loading at the matches is of no advantage unless a need to change load arises.

M. H. W.

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H.V.

May 30, 100 Yards; May 31, 200 Yards. 5 shot W.U., and 5 5-shot record matches daily.

*will include "Heavy Bench" and "Experimental."

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All Match Winners.

Small Groups, both classes, 100 and 200 yards.

Range Aggregates, (100 & 200), first three places, both classes.

Grand Aggregates, first three places, both classes.

Two-Gun Aggregate, first three places.

Four Man Team, first place (HV only).

Industry Shooters, first three places (HV only).

Husband-Wife Teams, first three places (HV only).

Junior Competitors (18 and under), first three places (HV only).

Patches

Match Participation — All Competitors.

Top 20 — Both Classes.

Top 20 — Two-Gun Aggregate.

W.U. Match Winners

Registration

Entry Fees: \$40.00 each gun, plus \$15.00 to enter the Two-Gun Aggregate, if received by May 15, 1976. After May 15, 1976 registration will be \$55.00 per gun, plus \$20.00 for the Two-Gun Aggregate. Pre-match Registration is refundable, in full, if received before May 15, 1976; no refunds will be made after that date.

Payment: Check should be made payable to F.I.S.S. Your cancelled

check is your receipt, and no confirmation will be sent by the organizers. Send Entries to: Skip Gordon; 342-2 Quaker Church Road, Dover, New Jersey 07801.

Range Registration:

Thursday May 27, 1976

Friday May 28 and Saturday,

May 29 for competitors

shooting the HV class only.

NOTE: George Kelbly asks that the organizers advise that he can accommodate NO MORE THAN 320 competitors — 8 relays. George believes there is a good chance this number can be attained, in the HV event, and urges that pre-registrations be submitted to prevent disappointment.

Cash Awards

All Individual Matches, including W.U.'s are sponsored, and will pay \$75.00 for first place, \$50.00 for second, and \$25.00 for third.

Range Aggregates, both classes, first three places at 100 and 200 yards. Payout: 40% for first; 33 1/3% for second; 26 2/3% for third. Amount of payouts dependent upon available purse, (number of entrants).

Grand Aggregates, both classes. Guaranteed — \$250.00 first; \$200.00 second; \$150.00 third; \$100.00 fourth; \$50.00 fifth.

Two-Gun Aggregates, first ten places. 25% for first; 20% for second; 15% for third; 12.5% for fourth; 10.5% for fifth; and 3.4% sixth through tenth.

Amount of payouts dependent upon available purse (number of entrants).

Cash Option: There will be a cash option for all matches in each class. Details of the program, distribution, and entry requirements will be available at the range.

Total Cash Awards: Estimated to be approximately \$10,000.

Merchandise

Merchandise Awards: Order of finish in the 100 yard stage of the Heavy Varmint event will determine winners of merchandise. Prior to the Tournament, a drawing will be held by the organizers to determine the award for each place. The list will be available at the range.

General Information

Practice: Until 3 P.M., Thursday May 27.

Flags: Competitors may place their own.

Bench & Relay Positions: Will be assigned by the organizers.

This info will be available, in the shooter's kit, which will be distributed prior to the matches.

P.S. 3-A

Bench Rotation: Will be in effect.

Headquarters Hotel: Travel Lodge; 2851 Lincoln Way; Massillon, Ohio 44646.

Camping: Facilities are available.

Junior Program: There will be a cash and trophy, as well as Merchandise program for Junior Shooters.

Special Award

Oehler Chronograph will be awarded to the Top HV competitor who is registered, as a **club representative**. Every club affiliated with CBSA, IBS, or NBRSA is eligible to nominate **one** shooter to represent them. The chronograph will be forwarded to the President of the club within 30 days of the completion of the Tournament.

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"PULLED" COPPERCLAD BULLETS (Jackets)
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Unertl 1 1/2"	10"	3 oz.	\$8.00
Unertl 2"	10"	4 oz.	\$8.00
Unertl BV 20	10"	4 oz.	\$8.00
Remington	14"	3 oz.	\$8.00
Redfield 3200	10"	2 1/2 oz.	\$8.00
Leupold 24X	14"	4 oz.	\$8.00

Other lengths special order. Same price

- External Adjustment Knobs [pair]
Lyman AA 1/2 oz. \$15.50
- Remington 721-722-700-40X-40XBR-600-660
triggers converted to 2 oz. \$21.00

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Barrel Stiffness

by Pete Horowitz
Englishtown BRSA

Bench rest shooters have found over the years that heavy barrels are preferable to slim, lightweight barrels for producing small aggregates. There are reasons to believe that part of the advantage comes from the added stiffness of the larger barrel in addition to its cooler operating temperature and heaviness. For example, if the weight alone was the determining factor then there would be little or no advantage to using a heavy barrel in a heavy bench gun where the weight of the barrel is a proportionately smaller fraction of the total gun weight. On the other hand, if the cooler operating temperature alone was the determining factor then we would expect to see some sort of predictable group stringing at the target as the lighter barrel heated up. In practice we find that the high quality slim barrel will frequently shoot very small groups but interspersed with larger groups which hurt the aggregate. The randomness of this phenomenon leads one to believe that a random disturbance to the barrel of some sort is involved independent of any bedding problem because enough expoxied-in actions, sleeves and heavy bench actions have been used which minimize bedding variations from shot to shot.

Calculations, therefore, have been made on different barrel shapes and lengths, holding other variables fixed, to see more accurately what shape and length combinations are most resistant to bending.

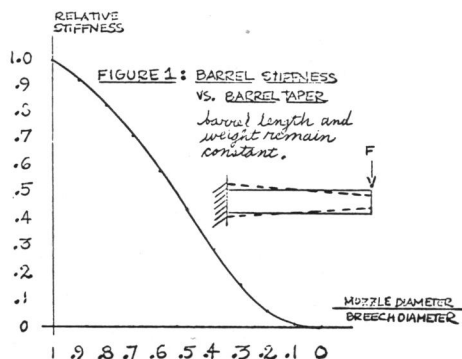
As a final note in passing it is

probable from a somewhat complicated technical argument that **up to a limit** the greater the static stiffness of the barrel the smaller the aggregates.

EXPLANATION OF CURVES BARREL STIFFNESS AND TAPER

The following curves were plotted from calculations of the bore resistance to bending when a sideways force is applied at the muzzle. Specifically, the "relative stiffness" numbers on the curves indicate relative angular static deflection of the bullet leaving the muzzle. For example, a "relative stiffness" of 0.8 means that that particular barrel will deflect a bullet one half the M.O.A. of a barrel with relative stiffness 0.4 when the same sideways force is applied to both barrels.

Figure one shows how barrel stiffness changes as straight taper is introduced while keeping the length and weight of the barrel constant. Because the calculation was done in this manner a basic fact can be drawn about barrel



taper from inspection of figure one i.e., taper reduces barrel stiffness, and the more the taper the greater the stiffness reduction.

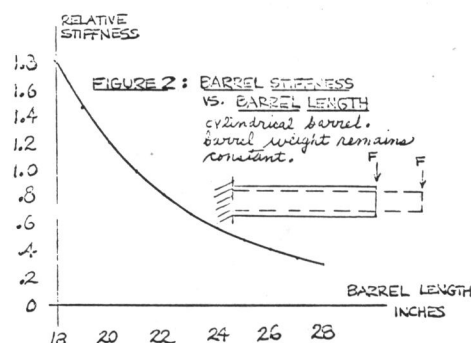
For example, consider a hypothetical hunting rifle with a barrel measuring 1.25" at the action and 0.69" at the muzzle. The barrel needs replacement and the owner would like to design the new barrel shape for maximum possible stiffness because he wants to hunt woodchucks and, without changing the overall length or weight of his rifle. Referring to figure one the shooter finds that he can do this and double the barrel stiffness. Then making an additional calculation (see end of report) he determines that the diameter of this replacement barrel at 0.98" no taper from action to muzzle. The shooter might want to make the barrel a little larger at the chamber and slightly reduce the calculated 0.98" barrel diameter to keep the weight constant but this would leave little effect on the factor of two stiffness improvement.

Quoting a recent letter from Mike Walker "... the latest practice at Remington (examples are 40XR and 40XC) is to design for reasonable appearance but to bring the breech diameter down quickly to a relatively slow taper to the muzzle. The thoughts on this system were generated by the Army Marksmanship Training Unit for their 300 meter rifles."

This effort to control barrel shape, hence stiffness as seen in figure one, gives further weight to the role and significance of barrel stiffness as a factor in rifle accuracy.

BARREL LENGTH

The use of figure one and associated calculations did not involve barrel length; only taper. The effect of changing barrel length on stiffness is plotted in figure two. This curve was calculated for the case of constant barrel weight and cylindrical shape as length is carried. Examination of the figure indicates significant improvement possibilities by barrel shortening.



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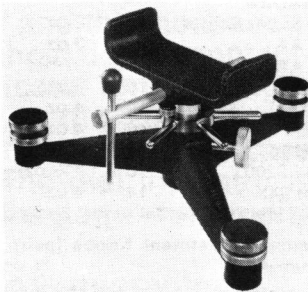
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As an example and again considering the hunting rifle: the shooter now in addition measures the length of his burned out barrel and finds its 24 inches long. Referring to his first calculation, he found that by replacing his 24" tapered barrel with a 24" cylindrical barrel of the same weight, he could double the stiffness. If the 24" long cylindrical barrel design was now changed to a 20.5" long cylindrical design keeping the weight constant the stiffness would increase by a factor of four over the original burned-out barrel.

This 20.5" barrel diameter would be 1.063" and its weight would be the same as the original burned-out barrel.

IBS & NBRSA BARRELS

The previous calculations were not constrained by barrel diameter restrictions, hence they indicate the full potential improvement possible when weight and length alone are considered. When constraints are placed on diameter in addition it may be advantageous to add taper to the barrel to get maximum "allowable" stiffness. For example, IBS and NBRSA rules allow a muzzle diameter of 1.024" for a 20.5" long barrel and the shooter of the previous examples could not compete with his 1.063" diameter barrel. One approach he could take would be to taper legally back from the muzzle 3" where the barrel diameter would be 1.068" then continue straight back to the breech at 1.068" diameter all the way. This barrel would weigh the same as the burned-out barrel, would be 3.95 times as stiff, and be legal for IBS and NBRSA shooting. Very little stiffness has been sacrificed in this case because little metal has been moved around.

BARREL STRENGTH

These design procedures are all for the purpose of achieving the stiffest rather than the strongest possible barrel, while making length, weight and diameter restrictions. There is no need to consider the strength of the barrel to these equivalent sideways thrusts, because they are very small. However, insight can be gained by knowing how far our contour has deviated from the optimum strength contour: that contour which distributes maximum stress uniformly along the length of the barrel, much the same way that an airplane wing or fishing rod tapers to achieve maximum strength for its weight.

A maximum-strength 22" long barrel 1.2" diameter at the breech is 0.92" diameter at 10", 0.72" diameter at 17", 0.54" diameter at 20" and 0" diameter at 22". Therefore, stiffness to static

deflection is achieved by using plenty of steel right to the muzzle while strength to static deflection forces is achieved by sharp tapering allowing the muzzle region to deflect severely (like a fishing rod with a big load) where the stresses are least per unit of angular deflection.

FOOD FOR THOUGHT

Large additional increases in effective barrel stiffness above those already described can be gained by epoxy-gluing a barrel into the entire forend of the stock. For example, a gun with a 1" diameter barrel and a 2" by 2" wood forend when cemented together results in a composite stiffness per unit length 6.2 times that of the barrel alone for forces applied vertically on the composite because the composite makes very efficient use of the stock as a rigidizing member.

This approach to rifle design has been avoided in the past probably for several good reasons, however, it may not always be the case.

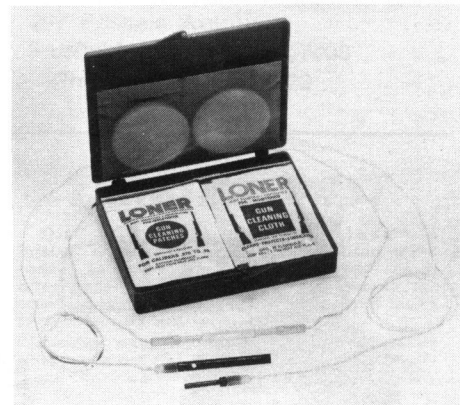
Additional calculation on this example indicates that a downward 5 lb. force exerted on the stock just behind the action would shift the impact point 0.042 M.O.A. upward suggesting that this design approach might be potentially useful for developing a very lightweight competition rifle and class.

The lightest weight action would be suitable in such a rifle and items such as the effect of barrel heating and rifle temperature on impact point could be calculated then engineered into a design which, for example, might use a fiberglass forend for long-term dimensional stability.

The scope of this article makes it impossible to include in-depth technical data; however, the theory and barrel design data are available from Pete

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Random Shots

by Betty Summerall Duncan
8630 Olin Street
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CHAMPIONS ALL — (left to right) Pres Kendall, Pacific States Fall Round-Up Champion; runner-up Vic Auer; (kneeling) Nancy Webb, High Lady, and Mary Stidworthy, High Junior. Also, golden retrievers El Oro and Amarillo (named for the range where he was left stranded) . . . at Annual Los Angeles Rifle & Revolver Club event.

Heavily favored to win his third **Pacific States Fall Round-Up Smallbore Prone Championship**, hardly anyone doubted that **Pres Kendall** "blew it" with his 2-point loss in the 100-yd. stage of the very first match, the Dewar iron.

It was a surprise when Vic Auer showed up, but no one was happier to see him than was another Olympic silver medalist, Jim Hill (Rome 1960). With hardly ten minutes to spare, Hill had been sweating out having his rifle to shoot — the Anschütz which Vic had borrowed for the Pan-Am Games as a back-up rifle.

A weird early morning haze enveloped the range causing visibility "fallout." Shooters who had flown in from the East were particularly susceptible . . . and puzzled, for the at-

mosphere the night before was unusually clear and they could see for miles as their planes landed at L.A.

Experimenting with the colored-filters in his Barrett disc, Pres Kendall finally hit upon the ideal combination . . . after it was seemingly too late. He had a problem, too, of under-doping in that initial match, getting acclimated to western conditions again. But then, as the wind came up, blowing away the haze (it was too early in the a.m. for smog), visibility as well as sight pictures improved.

Checking the board and noting Los Angeles Rifle & Revolver Club president **Allan Knowles'** 400-38X on top of the Dewar by 5Xs, he became the shooter to watch. . . . Until, **Mary Stidworthy**, with the exuberance of a thoroughbred filly after a slow start,

unraveled winds around the clock at 100-yds. to push ahead of Auer and Kendall by 3Xs at 400-32X. Knowles was caught for three points, and it became apparent that only Auer, the well-known Hollywood script writer, was clean. He, and Sheila George, a young expert on the first relay, who perhaps escaped the attention she deserved with **eight members of the Critchfield 3200 Club** and **five former National Champions** in the line-up.

Declining to dwell on spilled points, **Kendall**, using his usual infinitesimally-sized front aperture, poured in a 19X and an 18X rapid fire to take the meter. Acceleration achieved by an 8X margin, he went on to wind up the iron sight course with a 400-35X Creedmore at 50-yds. over 15 year-old Tim O'Daly, Rowland Heights, Calif. . . . Auer got through the 50-meter with a single point down, following a furore until it was established that the second 9 on his target was a crossfire.

As always, the quality of the competition is the most accurate barometer of conditions. Let's say that competition was superior. One seriously doubts that, had Tom Whitaker not been studying for pre-dental exams, the only shooter to fire a 6400 could have produced a 3200 at that time and place.

Auer had the points — 1599 — to stake out the **Metallic Aggregate**, but his 111X-count was decidedly shaky. Looking over his shoulder, his old teammate on the 1963 NRA Prone Team to Europe—**Pres Kendall**—was armed to the teeth with X's, 135 of them with a 1598 point score, just waiting for him to stumble (or lose a contact lens) . . . Only a point and an X behind Auer was National Smallbore Position Champion, **Lt. Robert Gustin**, USAR. The 1964 National Smallbore Prone Champion, WO4 **James E. Hill**, USMC, also had a 1598, X-count 107. Mary Stidworthy had piled up 124X's and a 1597, edging the 1597-112X by Clark Harris, another Junior Master.

Fortified by his well-known high, solid position and an intense desire to win — usually reserved for International tryouts and competitions — **Vic Auer** solidly placed 39 center shots in the any sight Dewar, an X ahead of the Stidworthys and Gustin . . . It usually becomes interesting at 100-yds., and an unbreakable 400-38X tie rated equal billing for **Mary Stidworthy** and **Pres Kendall** . . . Upholding the honor of the USMCR, **Allan E. Archibald**, of Andover, Conn., dropped but a single X to

lead the pack by 5Xs at 50-meters. It was treacherous, and particularly so for the "Nearsighted Marksman Who Collects Sharpshooter Honors" (**Los Angeles Times** headline 1961). Shooting down to the wire in almost every match, Vic Auer revealed that he is not impervious to the pressure when he flipped a high one on his last bull in the 1st stage of the meter. It was at that juncture that **Major Pres Kendall**, NGUS, moved in and took command. Critchfield 3200 Club member **Debbie Hicks**, a student at Arizona State College at Tempe, punctuated her 1600 with a 400-37X 50-yd. win.

Pres Kendall told **George Stidworthy** that it was indeed an honor for him to defeat the "1600 King" in the **Any Sight Aggregate** — 1600-143X to 1600-138X. **Debbie Hicks** X'd 130, and it was quite an achievement for **Bob Perkins**, 1952 National Champion, to aggregate a 1600-121X despite a severe shoulder ailment. Mary Stidworthy, X'ing 147, led a string of eleven 1599's, among whom were Gustin, Archibald, Auer, Harris, Gerald Marotta, Greg Brown, Bruce Peterson, (Tucson); Jim Hill, Nancy Webb, and Bill Esperson, Sunnyvale, Calif.

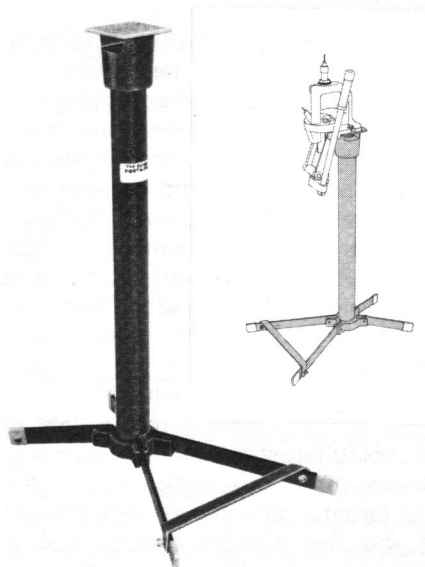
And, so it was that the rifle that has never lost a championship in five tries came through again. On its maiden voyage, the standard barreled Anschutz established the National Metallic Sight Record of 1600-152X in North Carolina. This year it won the Georgia State Championship at Atlanta's River Bend Gun Club with a 3199-288X over prestigious competition on Sept. 20-21, followed by a landslide victory of 3198-277X at Patapsco, Md., in October, over a 3193-234X.

The final tally of the **PACIFIC STATES FALL ROUND-UP** showed the Champion for the third consecutive year to be **MAJOR PRESLEY W. KENDALL**, NGUS, Carlisle, Kentucky — 3198-278X. Runner-up — **Victor L. Auer**, Sp4, USAR — 3198-244X; **Gustin** — 3197-245X, **Hill** — 3197-233X; **High Junior**, **Mary Stidworthy** — 3196-271X; **Clark Harris** — 3196-245X, 4th Master; **Nancy Webb** — **High Lady** — 3195-236X.

Steve Dember of La Mirada, Calif. won the Expert Class with a 3190-247X.

The flashiest star on the range was 11 year-old Cindy Brown. Blonde and petite, the young sharpshooter initiated a 3-way contest in her family. At the end of the metallic sight day, it was Cindy — 1586-92X; her father, Howard, an expert — 1588-84X; and her 15-year-

old brother, Greg, a master — 1587-98X. Outshooting a number of veteran competitors, young Cindy Brown has not only given her father and brother cause to try harder, but perhaps provided an incentive for others to improve the quality of their shooting.



NEW PRODUCT FOR APARTMENT DWELLER RELOADERS

The Republic Tool & Manufacturing Company of Caldwell, New Jersey has announced introduction of the "Porta-Post", a ruggedly constructed, all steel support for metallic presses and shot-shell reloaders.

According to Tom Heller, of Republic, the unit was designed specifically for the hobbyist who does not have access to a "shop", or "reloading room". The 22 pound Porta-Post stands approximately 29 inches high, placing a press at virtual eye-level with a seated user.

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Adapter plates are stocked at \$4.95 for most metallic reloading presses and

shotshell reloaders. When ordering, specify the tool you plan to use. Blank adapter plates are also available.

The fully warranted Porta-Post is finished in textured black enamel. The price is \$69.95, F.O.B. Caldwell. Add \$3.50 for shipping and handling.

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Destination Down-Under

PART I
by Skip Gordon

THE LOVELOCK-SPEER MATCHES
November 8-9, 1975
Canberra A.C.T.

Saturday morning, November 8, 1975 was clear and cool in Canberra, Australia. The Madura Road complex that houses the SSAA's Capital Territory shooting complex was the scene of what many of those present considered the most exciting and significant occasion in the history of Australian benchrest competition.

The event was the Lovelock-Speer Matches for Light and Heavy Varmint Rifles. Previously held as an inter-state Postal tournament, this was the first Australian Speer Match to be held on a shoulder to shoulder basis. (F. C. Lovelock Pty. Ltd. is CCI — Speer's Australian agent). On hand to assist in any way possible were Jerry Prior and Arlen Chaney, two of the Good Ol' Boys, from Lewiston. Jerry is President of CCI-Speer, and Arlen is that company's Director of Marketing.

Also on hand, thirteen Canadian and Yank competitors — the first to ever visit Australia for the purpose of competing with their Australian peers. They came from Arizona, California, Idaho, New Jersey, Texas, and British Columbia. The presence of those thirteen shooters was the culmination of almost 1 1/2 year's planning by the author, SSAA officials, and the management of F.C. Lovelock. The trip had been widely publicized, and the Aussies were out in

force displaying an enthusiastic hospitality that defies description.

The visitors had a few adjustments to make, the chief of which were those created by the design of the targets, the positioning of them, and the fact that two targets are shot at each "sitting".

The target **area** is identical to IBS' and NBRSA's. However, there is a second sighting square at the bottom of each target, precisely twice the size of the one at the top. (On the 100 yard paper, it measures 2 inches.)

The Sighter Target is to the **right** of the record target, instead of beneath it. Targets are hung vertically; i.e. the W.U. target is mounted above the target for the first Record Match. Backer strips are motor driven vertically, from bottom to top. Twenty minutes is given for the W.U. and first record match, and seventeen minutes for each subsequent pair of targets.

The "mass of black" afforded by the second sighting square did, indeed, require a bit of getting used to . . . it's quite easy to lose shots, even at 100 yards. (At the Brisbane match, held the following week, the targets were printed in red, and the condition was pretty much done away with.)

The match was under the personal direction of SSAA President Ian Coombs, who seemed to be everywhere; changing targets, conferring with the scoring detail, assisting with registration and weigh-in, and acting the gracious host. The Rangemaster was Harry Madden, SSAA's Director of benchrest activities. (Ed. Note: As mentioned last month in Precision Shooting, Harry passed away on Dec. 5 having seen his country's greatest benchrest match to completion. He will be missed.)

The 100 Yard Heavy Varmint event was a squeaker, with Ann Brummell — quite possibly Australia's top shooter in this class — holding on to defeat the author 3048 to .3060! Ron Marsden's .3500 was good for third place.

At 200 yards, Ed Shilen sneaked up from somewhere deep in the pack, and took the honors with a .4046. The author, still playing bridesmaid, fired a

.4174, barely nosing out Mike Gibbon Jr. and his .4204.

As we all know, most old sayings are deeply rooted in the truth. "Even a blind hog can occasionally find the acorn" is no exception, as indicated by my stumbling into 1st place finish in the Grand, with a .3617. Ann Brummell was nipping at my heels, though, with a .3698; and 3rd went to Mike with a .4056. Other Yanks in the Top 10 were Ed Shilen, 6th (.4313); Lee Six, 8th (.4452); and Jack Reynolds, 9th (.45360).

Because the Heavy Varmint event had run later than anticipated, the frames were left at 200 yards overnight, and that's where we started on Sunday morning, with the 10 1/2 pounders.

Again, Ed Shilen showed the way — and this time conditions were reminiscent of Midland — with a .6214. Lee Six, partner in Brown Precision, placed second with a .6514, followed by Jack Shelley's .6868 . . . and we'll have more to say about Jack a littler later.

By Sunday afternoon, Mother Nature had come to her senses, and group sizes began to look a bit more respectable. The author, elated to actually see bullet holes again, shot one of the best 100 yard agg's of his undistinguished career. Our .2844 was followed by Tom Brummell's .3368, and Herb Valerius' .3816. The .2844 is a range measured Australian LV 100 yard record. Ironically, the existing mark was set by Tom, just two months previous to the Canberra match.

The LV Grand was taken by Ed Shilen's .5591. He was followed by Lee Six, whose .5643 was comfortably ahead of Mike Valentine's .5990. Other Yanks in the Top 10: Chet Brown, 5th (.6267); and Bill Minneman, 6th (.6408).

Small Groups at the Lovelock-Speer Matches:

100 Yards HV	
R. Carnell	.166
200 Yards HV	
L. Six	.418
100 Yards LV	
S. Gordon	.192
200 Yards LV	
S. Miller	.592
(Note: There were only 9 groups under an inch fired in the 200 Yard LV stage.)	
Two-Gun Aggregates — Top 10:	
Ed Shilen	.4952
Lee Six	.5047
Jack Shelley	.5170
Mike Valentine	.5427
John Giles	.5461
Chet Brown	.5556
Ann Brummell	.5859

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Syd Miller	.6040
Kevin Edwards	.6145
Bill Minneman	.6213
Australia — U.S. 2-Man Team Trophies were awarded to:	
Jack Shelley and	
Ed Shilen	.5061
Mike Valentine and	
Lee Six	.5237
John Giles and	
Chet Brown	.5508

The trophy contributed by Wally Hart, commemorating the late Bob Hart's dedication to the implementation of true international benchrest competition, went to Jack Shelly, the top Australian competitor, for his .5170 2-Gun Aggregate, good for 3rd place overall. Jack, for lack of better words, "came unglued" when the announcement was made. It seems he had, many years ago, settled on Bob Hart as his benchrest idol. Circumstances were such that he never actually met Bob, but this in no way diminished his admiration and respect for the man who gave so much, to so many of us. I have never seen a man any more proud, nor any happier than Jack Shelley was, that Sunday night, in



Hazel (Mrs. Robert W.) Hart, and son Wally admire trophy being sent to Australia. The trophies will be given to the Top Australian shooter at matches in Canberra and Brisbane. Donated by Wally, they commemorate the contributions to benchrest of his father, the late Robert W. (Bob) Hart. The trophies were designed by Boars Head Marketing, and crafted by V. H. Blackington, of Attleboro Falls, Mass. The trophy features one of the Lyman/Sierra commemorative buckles imbedded in lucite, mounted on an epoxy base.

EQUIPMENT and COMPONENTS — Top 10 Heavy Varmint

Name	Cartridge	Action	Scope	Barrel	Bullet Mfr.	Primer
Skip Gordon	.222	Shilen	3200	Shilen	Shilen	CCI
Ann Brummell	.222	Remington	Unertl	McMillan	Remington	RWS
	.308	Sako	Unertl	McMillan	McCracken	RWS
Mike Gibbon	.308	Winchester	Remington	McMillan	McCracken	CCI
Ron Marsden	30 Win.	Remington	Remington	McMillan	Detsch	Rem.
	6x47	Remington	Remington	Hart	McCracken	Rem.
Tony Powell	.222	Remington	Lyman	Hart	Remington	CCI
Ed Shilen	.222 1/2	Shilen	Lyman/Sieb.	Shilen	Shilen	CCI
Mike Gibbon Sr.	.308	Winchester	Remington	McMillan	McCracken	CCI
Lee Six	.222 Mag.	Benchmaster	Lyman	Hart	Shilen	Rem.
Jack Reynolds	.222 Mag.	FFC	Shilen	Shilen	Remington	CCI
John Giles	.308	Remington	Remington	McMillan	McCracken	RWS

Light Varmint

Ed Shilen	6x47	Shilen	Lyman/Sieb.	Shilen	Shilen	CCI
Lee Six	.222 Mag.	Shilen	Lyman/Sieb.	Shilen	Shilen	Rem.
Mike Valentine	.222	Remington	Lyman	McMillan	Nosler	Rem.
Jack Shelley	6x47	Remington	Lyman	McMillan	McCracken	Rem.
Chet Brown	.222 Mag.	Shilen	Lyman/Sieb.	Shilen	Shilen	Rem.
Bill Minneman	6x42	Remington	Lyman	Shilen	Detsch	Fed.
John Starkey	.222	Remington	Lyman	Douglas	Sierra	Rem.
John Giles	.222	Remington	Lyman	McMillan	McCracken	CCI
Syd Miller	.222	Sako	Unertl	McMillan	McCracken	CCI
Bruce Treloar	.222	Remington	Remington	McMillan	Remington	Rem.

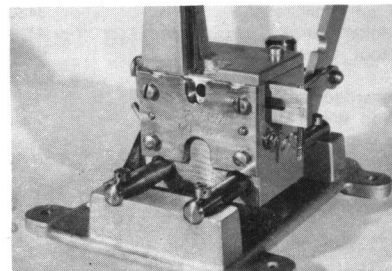
Canberra. It was a nice thing to be part of.

No report of an Australian benchrest match would be complete without mention of the Aussie version of the Bar-B-Que. Steaks, sausages, and chops are grilled in quantities that are almost frightening. Combined with fresh salad and bread, it is truly a feast. And, of course, all is washed down with the justifiably famous Australian beer, consumed in quantities appropriate to the heaping plates.

Next month: Brisbane — and the Queensland State Championships. (Note: The author regrets time made it impossible to submit photos with this manuscript, as over a dozen rolls of film were still being processed. Full pictorial coverage of Destination Down Under will appear in an early issue).

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THE GUN CLINIC

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The inscriptions read: "Someday there will be true international competition . . . R. W. Hart". In a letter to Skip Gordon, the late Harry Madden, Senior Vice President of the Sporting Shooters Association of Australia, and Chairman of their Benchrest Committee, had this to say: "Please convey to Wally Hart the sincere thanks of the Sporting Shooters Association of Australia for his contribution to the trophy list, in memory of his father Robert W. Hart, a name that is familiar to all Australian benchrest shooters."

IBS REGISTERED HUNTER RIFLE MATCH
IZAAK WALTON LEAGUE, YORK, PA. Oct. 19, 1975

Name	Score	Cal.	Rifle	Scope	Bullet	Load	Primer	Case
1. P. Olewine* Dauphin, Pa.	248-22	308	Rem. Hart	Leupold 3X9	168 gr. Sierra	49 gr. 760	Fed.	Govt.
2. G. Long* Millville, Pa.	247-13	308	Rem. Hart	Lyman 6X	168 gr. Sierra	39 gr. 4064	Rem.	Rem.
3. R. Linn York, Pa.	246-13	308	Rem. Hart	Lyman 6X	168 gr. Sierra	46 gr. H-380	Fed.	Fed.
4. V. Pastorella Milnesville, Pa.	244-8	308	Rem. Dgls.	Lyman 6X	168 gr. Sierra	48 gr. 760	Fed.	Govt.
5. R. Fritz Bloomsburg, Pa.	244-5	308	Rem. Hart	Leupold 3X10	168 gr. Sierra	41.5 gr. 4064	Fed.	Govt.
6. J. Loucks York, Pa.	242-7	308	Win. Win.	Bushnell 6X	168 gr. Sierra	46 gr. 4831	Rem.	Win.
7. S. Starzinski Kingston, Pa.	240-7	308	Rem. Hart	Redfld. 4X12	168 gr. Sierra	45.5 gr. H-380	Rem.	Fed.
8. K. Miller Jacobus, Pa.	238-8	308	Rem. Hart	Weaver 6X	168 gr. Sierra	37 gr. 3031	Win.	Win.
9. T. Leighton Geigertown, Pa.	237-6	308	Rem. Hart	Lyman 6X	168 gr. Sierra	38.5 gr. 3031	CCI	Win.
10. L. Loucks York, Pa.	235-5	308	Rem. Dgls.	Redfld. 6X	168 gr. Sierra	41 gr. 4895	Rem.	Win.
11. E. Gates** Harrisburg, Pa.	233-6	6MM	Rem. Hart	Leupold V-9	70 gr. Sierra	34 gr. 4895	Fed.	Rem.
12. R. Drexler Churchville, Pa.	231-3	308	Rem. Hart	Weaver 6X	168 gr. Sierra	41 gr. 748	CCI	Win.

HUNTER

1. S. Leighton* Geigertown, Pa.	244-7	7X47	Rem. Dgls.	Lyman 6X	100 gr. Detsch	37.5 gr. 3031	CCI	Win.
2. C. Eckrote* Drums, Pa.	242-8	308	Rem. Hart	Lyman 6X	168 gr. Sierra	49 gr. 3031	Fed.	Fed.
3. J. L. Grim York, Pa.	239-3		Rem. Hart					
4. C. Eppley Dallastown, Pa.	235-7	6/250	Rem. Hart	Weaver 6X	75 gr. Sierra	37 gr. 4895	CCI	Win.
5. A. Sabo Hazleton, Pa.	235-4	243	Rem. Rem.	Lyman 6X	85 gr. Sierra	33 gr. 4895	CCI	Rem.
6. Randall Fritz Bloomsburg, Pa.	231-2	6/250	Rem. Hart	Lyman 6X	70 gr. Sierra	38.5 gr. H-414	Rem.	Win.

MARKSMAN

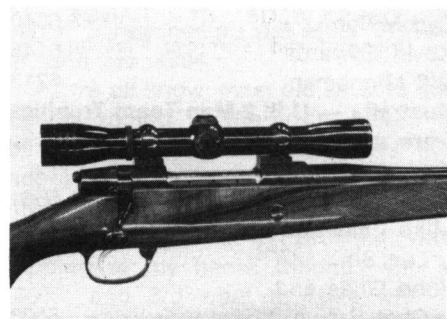
1. J. Austin* Bloomsburg, Pa.	227-4	308	Rem. Rem.	Redfld. 6X	168 gr. Sierra	40 gr. 4064	Fed.	Govt.
2. T. Newhard* Bloomsburg, Pa.	225-2	308	Rem. Rem.	Lyman 6X	168 gr. Sierra	46 gr. 760	Fed.	Rem.
3. S. Loucks York, Pa.	223-2	243	Sako Rem.	Weaver 6X	85 gr. Sierra	44 gr. 4831	Rem.	Win.

UNREGISTERED GROUP SHOOT

1. Paul Olewine*	.3420	4. Gary Long	.5144
2. Helen Long*	.4116	5. Ed Gates	.5378
3. Robt. Drexler	.5090	6. Bill Goodwin	.5974

*Awarded Prize Money
 **Won Warm-Up 50-2X
 See you in January.

R. Linn. Secy.



Conetrol mounts are now available for the Kleinguenther K-14 rifle in all three lines of its manufacture — 'Huntur,' 'Gunner,' and 'Custom.' Shown in photo is the Gunnur base with rings on the K-14.

Each mount comes complete with all necessary screws — including the metric attachment screws — for easy installation. Three ring heights accommodate any scope. The Huntur mount lists for \$22.85, the Gunnur for \$27.85, and the Custom for \$34.85.

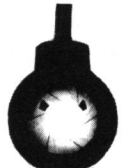
Conetrol now provides mounts to fit more high-power rifles than any manufacturer in the business . . . in this country or anywhere else! Besides offering the shooter a choice of three lines in addition, the firm offers the choice of one- or two-piece bases in virtually all instances.

Conetrol has mounts for all the metric-screw guns, which includes not only the Kleinguenther K-14 but the Steyr Mannlicher series, the Voere 'Shikar' and 'Black Forest,' the Apollo, etc. Conetrol's depth in dovetail bases far surpasses that of any other mount maker — an extraordinary accomplishment in its own right for a company so young. Rifles with dovetailed receivers which will take such bases without drilling or tapping are Sako, BSA, Krico, BRNO, Ithacagun, LSA-55, Steyr, etc.

Other hard-to-fit guns which Conetrol mounting is available for include the 660 Mauser, Anschutz 54 and 153, Browning B-78 Single Shot, Ruger No. 3, Champlin, Colt Sauer, Colt Sharps, Harrington & Richardson Sakos, M-1 Carbine, Musgrave, Omega, Sako Finnwolf, Savage 24V, Texas Magnum and Maverick, Thompson/Center Contender pistol, Lee-Enfields No. 4 and 5, XP 100 Remington pistol, and many rimfire rifles.

Coming up shortly will be adaptor bases which will attach to the mounting mechanism of Ruger rifles and the grooved receivers of most .22 rifles without drilling or tapping.

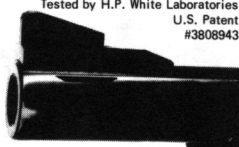
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CBRSA BLUE TRAIL RANGE Unregistered Summer Matches

These are the results of the three matches we held during the 1975 summer season.

July 13, 1975 Light Varmint

1. Bob Reid	.5174
2. Neil Lafforthun	.5234
3. John Fornier	.5690
4. Jim Stack	.5862
5. Frank Nash	.6090
6. Joe Vinci	.7538
7. Ed Goff	.7634
8. Hans Koch	.8978
Warm Up, Ed Goff	.377

Heavy Varmint

1. Joe Vinci	.4346
2. Chet Mossakowski	.4408
3. Ken Viara	.4668
4. Ed Goff	.5250
5. Stan Popper	.5602
6. Darrell Smith	.5702
7. Pat Orrel	.5808
8. Hans Koch	.5884
9. Bob Reid	.6342
10. Jim Stack	.6526
Warm Up, H. Koch	.220

August 10, 1975 Light Varmint

1. Bob Reid	.3600
2. Ed Goff	.4500
3. Ken Viara	.5002
4. Ron Rosen	.5100
5. Frank Nash	.5452
6. Joe Vinci	.5488
7. Neil Lafforthun	.7502
8. Dom Gagliastro	.7672
9. Hans Koch	1.0338
Warm Up, Ed Goff	.479

Heavy Varmint

1. Ron Rosen	.3648
2. Bob Reid	.3926
3. Hans Koch	.4908
4. Joe Vinci	.5552
5. Darrell Smith	.5684
6. Bette Popper	.5856
7. Jim Stack	.5950
8. Ken Viara	.6344
9. Stan Popper	.6358
10. Neil Lafforthun	.6748
Warm Up, Bette Popper	.160

October 19, 1975 Light Varmint

1. Frank Nash	.4306
2. Ken Viara	.4770
3. Ed Goff	.4988
4. Joe Vinci	.5086
5. Neil Lafforthun	.5372
6. Bob Reid	.5972
7. Hans Koch	.6212
8. C. Magnante	.6984
Warm Up, Ed Goff	.364

Heavy Varmint

1. Chet Mossakowski	.4116
2. Frank Nash	.4956
3. Seeley Masker	.5152
4. Bob Reid	.5266
5. Dom Gagliastro	.5552
6. Joe Vinci	.5846
7. Pete Chimbros	.5984
8. Jesse Silverman	.6134
9. Ed Goff	.6198
10. Hans Koch	.6754
Warm Up, J. Silverman	.343

Hans Koch, Match Director

1976 CORBIN Handbook and Catalog Available December 1

A highly illustrated combination handbook of bullet swaging techniques and catalog of products for gunsmiths, die-makers, and handloaders will be available starting December 1, 1975, from D.R. CORBIN MFG. CO., P.O. Box 44, North Bend, Oregon 97459.

The new handbook/catalog is in 8 1/2 by 11 inch format (magazine size) and contains more than fifty close-up photos illustrating bullet swaging techniques for rifle and handgun calibers, jacket making, and core casting. Tools included are rifle and handgun swaging dies, jacket maker kits, core moulds, a bullet puller, powder dripper, cannellure tool, pressure-sensitive adhesive backed targets, and a new series of kits for

handloaders just starting into bullet swaging.

The entire line of Corbin laps and metalworking chemicals, including exotic abrasives such as diamond and synthetic sapphire, is now available to the hobbyist. This line was formerly restricted to gunsmiths and industrial customers, but is listed with descriptions of use in the new book. Included are honing and lapping oil, cold-working lubricant, cutting gel, and other unusual metalworking products.

The catalog is priced at \$2, and contains a significant amount of reference information about bullet swaging and metalworking materials. This is the second catalog for the company, the first having been printed only in a limited run of 1,000 copies. The second catalog will also be a limited printing, and interested persons should reserve a copy now.

(D.R. CORBIN MFG. CO. was formed in 1974 to market the products formerly manufactured by S.A.S. Dies, a 20-year-old pioneer in low-cost bullet swaging equipment. The company is a partnership between brothers Richard and Dave Corbin, the former a master machinist and gunsmith graduate of Trinidad College. Dave Corbin is a firearms experimenter and writer whose work has appeared in a number of national magazines. Both men are veteran businessmen who have founded the highly successful Teletron Communication Electronics, Inc. firm and served as directors for it.)

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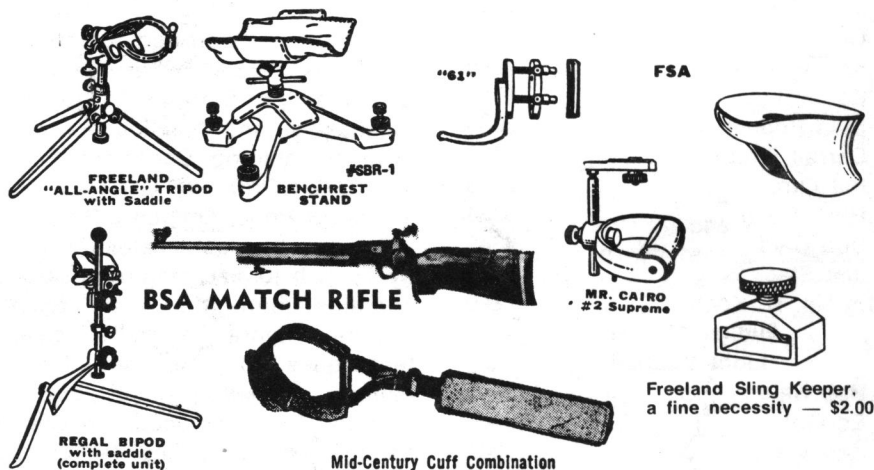
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